



Launch Mission Execution Forecast

Mission: Falcon 9 Starlink 4-12

Issued: 15 Mar 2022 / 0830L (1230Z)

Valid: 18 Mar 2022 / 2314 – 0043L (19/0314 – 0443Z)



Forecast Discussion: An area of low pressure, now developing over the southern High Plains will continue its development as it moves eastward through the week. It becomes better organized over the lower Mississippi Valley by early Friday morning. The latest forecast guidance suggests an area of showers and thunderstorms will develop ahead of the low across parts of northern and central Florida along a surface boundary as it moves across the Florida peninsula. Showers are likely to accompany the boundary as it moves across the state. Therefore, the primary concern for launch day will be from Cumulus Clouds.

In the event of a delay, the low moves rapidly off to the northeast and this will cause the boundary to slow down across central Florida. With the boundary becoming hung up over Central Florida, the potential for showers will continue. The primary concern for the back-up day is from Cumulus Clouds.

Launch Day	Probability of Violating Weather Constraints ¹							
	40%	Primary Concerns: Cumulus Clouds						
	Weather Conditions					Additional Risk Criteria ²		
	Weather/Visibility:	Sct Shwrs / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low
	Temp/Humidity:	69°F / 90%	Cumulus	Scattered	2,500	12,000	Booster Recovery Weather:	Low to Moderate
	Liftoff Winds (200'):	180° 15 - 20 mph					Solar Activity:	Low
24-Hour Delay	Probability of Violating Weather Constraints							
	40%	Primary Concerns: Cumulus Clouds						
	Weather Conditions						Additional Risk Criteria	
	Weather/Visibility:	Sct Shwrs / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low
	Temp/Humidity:	64°F / 93%	Cumulus	Scattered	2,500	12,000	Booster Recovery Weather:	Moderate
	Liftoff Winds (200'):	260° 12 - 15 mph					Solar Activity:	Low
Notes	1. The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring anytime during the launch window.							
	2. Additional Risk Criteria, which are not included in the PoV, are mission-specific constraints that may not include all phenomena within each risk factor.							
See https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf for more information								
Note: The Probability of Violation (POV) is the chance that a Lightning Launch Commit Criteria (LLCC) or certain user constraints (surface winds, precipitation, and temperatures, etc.) will be violated during the launch window. It does not take into account upper-level wind shear, booster recovery weather, and solar activity.								
Next Forecast Will Be Issued			16 MAR 2022					